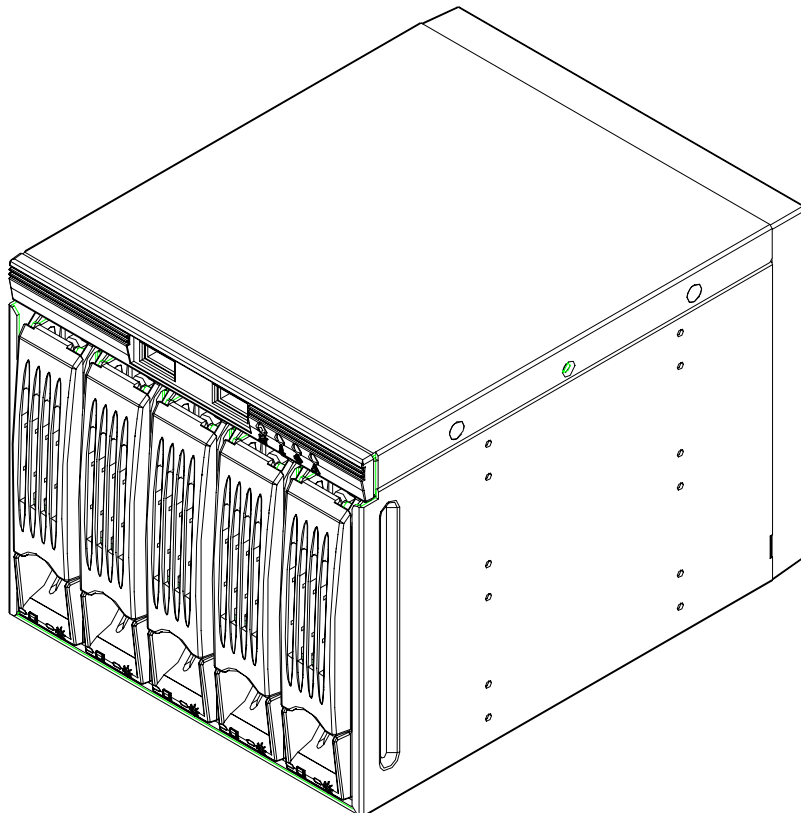


Chenbro



SK23502 / SK23512 3-to-5 SCSI Storage Kit User's Manual

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We want you to get the maximum performance from your products. So if you run into technical difficulties, we are here to help. For the most frequently asked questions, you can easily find answers in your product documentation. These answers are normally a lot more detailed than the ones we can give over the phone.

So please consult this manual first. If you still cannot find the answer, gather all the information or questions that apply to your problem, and with the product close at hand, call your dealer. Our dealers are well trained and ready to give you the support you need to get the most from your Chenbro products. In fact, most problems reported are minor and are able to be easily solved over the phone.

In addition, free technical support is available from Chenbro engineers every business day. We are always ready to give advice on application requirements or specific information on the installation and operation of any of our products.

Packing List

Chenbro's 3-to-5 storage kit SK23502/SK23512 series standard packing includes:

- SK23502/SK23512 Storage Case
- Ultra320 SCSI Backplane
- SK23502/SK23512 LED board (Front)
- USB / Serial ATA LED cable (bundled)
- 80mm (T32mm) Exhaust Fan
- Screws: #6-32 (6mm) x 20 pcs, M3 (6mm) x 12 pcs
- Five Drive Carriers (Black)
- One SCSI cable
- One extended USB cable (500mm)
- One external SCSI terminator

Technical Specifications

Occupancy	Three 5.25" Drive Bays
Capacity	Five Ultra320 SCSI hard drives
Cooling Subsystem	One 80mm (T32mm) Exhaust Fan
System Monitoring	<ul style="list-style-type: none"> ● Fan Fail Detection LED and Alarm ● Overheat LED and Alarm ● Drive Fail LED and Alarm (SK23512 only)
Front Access	Two USB ports in the front panel
Dimension (WxHxD)	146 x 128 x 220 (mm) 5.75 x 5.04 x 8.66 (inch)
Weight (include fan)	2.2 kgs

Chassis Supported

- RM313 / RM411 / RM412 / RM422
- SR107 / SR108 / SR105 (exclude "Granite" series panel)

Introduction

The Chenbro SK23502/SK23512 is design for fitting with any chassis which has three 5.25" bays (and space available for depth 9.5" as recommended), it can use this space to turn to five hard drives integrated. For those who want the existing servers to have more HDD density with keeping the flexibility, this storage kit is the best solution as value add feature and excellent performance.

Functional Specification

General

- Support Ultra320 SCSI SCA (80pin) interface
- Support optional SAF-TE function (SK23512 only)
- Compatible with 3.5" Ultra320 SCSI drive

Host/Drive/Power interfaces

- 5 Ultra-320 SCSI disks per backplane with 80-pin SCA2 connectors for internal connection
- 2 HDCI SCSI in/out 68-pin connectors for backplane cascading, external device and terminator.
- SCSI ID is based on "group" and configured by a DIP switch without ID conflict check
- 2-digit DIP switch to control disk spin up: AUTO, DELAY, and COMMAND
- Individual disk activity signals per hard disk : Power LED – Blue (When HDD is present), Access LED –Amber blinking (When HDD is busy)
- 2 USB access ports
- No SCSI terminator on board (Use External Terminator)
- 2 big-4P (Molex device connector) power inlets

Monitoring Function

- 1 x Fan 3P3C connectors with speed monitoring
- Fan monitoring can be disabled separately
- 5 x temperature sensors (facing to HDD) for overheating monitoring
- Overheat temperature is selectable – 55 degC/65 degC
- Support one buzzer for audible alarm, three fail LED output for fan/overheat/HDD fail events, one alarm mute button for disabling audible alarm
- Alarm mute & LED outputs are connected through 2 x 7 pin header (pitch=2.54) with 1 key pin to the LED board

Connector Description

- (1) **[SCSI_HDD1/SCSI_HDD2/SCSI_HDD3/SCSI_HDD4/SCSI_HDD5]** : Connect SCSI HDD
- (2) **[JP1]** : Connect Fail LED / USB connector (to LED board)
- (3) **[CON1 / CON2]** : Connect SCSI HBA (68-pin)
- (4) **[FAN1]** : Fan connector
- (5) **[CN1 / CN2]** : Power connectors
- (6) **[SW1]** : Overheat alarm setting
- (7) **[JP2]** : Front USB connector (to M/B)

Pin Assignment

[FAN1]

Pin	Def.
1	GND
2	+12V
3	Sensor



FAN Connector

[CN1 / CN2]

Pin	Def.
1	+5V
2	GND
3	GND
4	+12V



Power Connector

[JP1]

Pin	Def.	Pin	Def.	Pin	Def.	Pin	Def.
1	USB_Vcc	5	USB_D0+	9	USB_D1-	13	Mute(-)
2	Overheat(-)	6	G_Diskfail(-)	10	GND	14	Key pin
3	USB_D0-	7	USB_Vcc	11	USB_D1+		
4	Fan_fail(-)	8	Vcc	12	GND		



LED Connector

[JP2]

Pin	Def.	Pin	Def.
1	USB_Vcc	6	USB_Vcc
2	USB_D0+	7	USB_D1+
3	USB_D0-	8	USB_D1-
4	GND	9	GND
5	Key-Pin		N/C

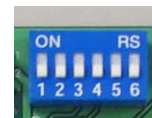


USB Connector

Default Jumper Setting (with “**”)

SW1[1,2]: HDD Spin-up Option

SW1-1	SW1-2	Function
Off	Off	Spin up when power is apply
Off	On	Spin up on start command
On	Off	Spin up after delay
On	On	Reserved



FAN Connector

SW1[3]: HDD ID and SAF-TE ID Setting

SW1-3	HDD ID (HDD1 – HDD5)	Chip ID (SK23512 Only)
Off	0 – 4	6
On	8 – 12	14

SW1[4]: Fan1 Monitoring Alarm Setting

Sw1-4	Fan1
On	Enable
Off	Disable

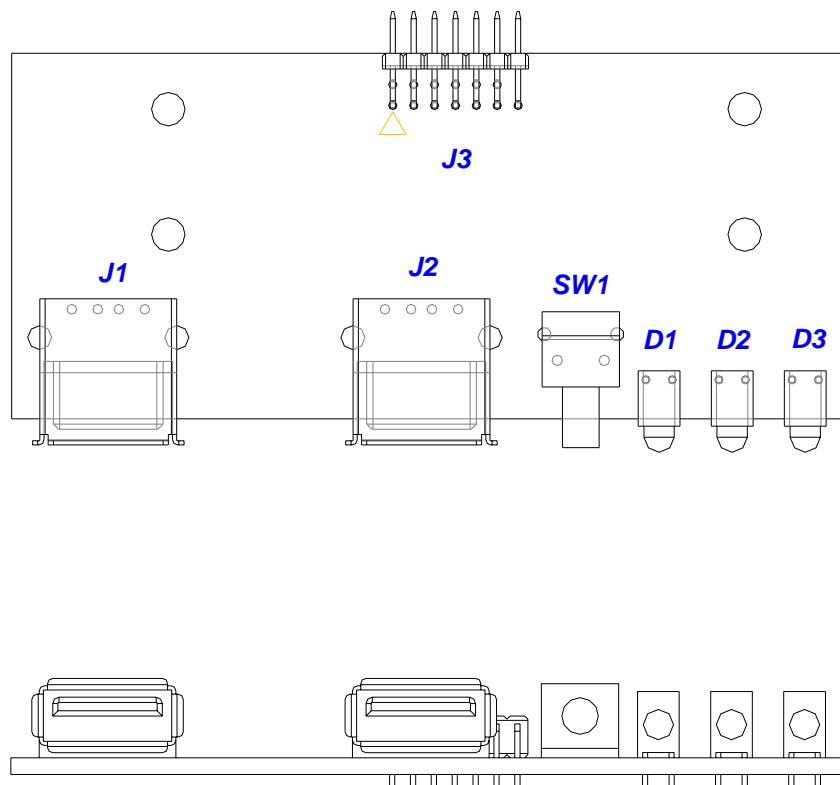
SW1[5]: Temperature Monitoring Alarm Setting

Sw1-5	Temperature
On	65 Degree C
Off	55 Degree C

SW1[6]: NC (Reserved)

LED Module Layout

LED Module Connectors



[J1] : USB Port #1

[J2] : USB Port #2

[J3] : Connect Fail LED / USB connector (to backplane)

[D1] : Fan Fail LED

[D2] : Overheat Fail LED

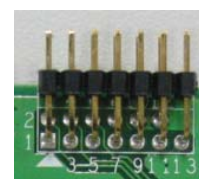
[D3] : Global Fail LED (Only functional on SK23512)

[SW1] : Alarm Mute Switch

Pin Assignment

[J3]

Pin	Def.	Pin	Def.	Pin	Def.	Pin	Def.
1	USB_Vcc	5	USB_D0+	9	USB_D1-	13	Mute(-)
2	Overheat(-)	6	G_Diskfail(-)	10	GND	14	Key pin
3	USB_D0-	7	USB_Vcc	11	USB_D1+		
4	Fan_fail(-)	8	Vcc	12	GND		



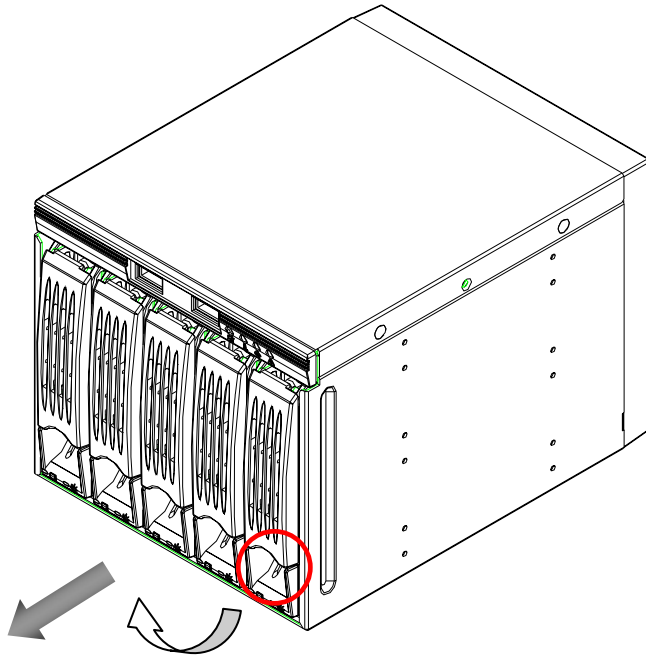
LED Connector

Installation Procedures

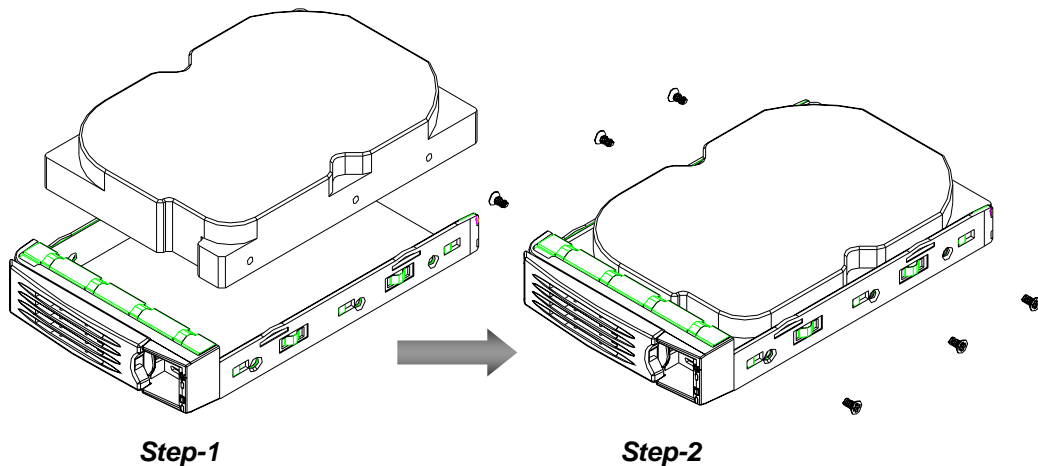
Please follow below sessions of different installation procedures for HDD assembly, backplane assembly and some proper usage information.

(1) Assembly hot-swappable hard drives

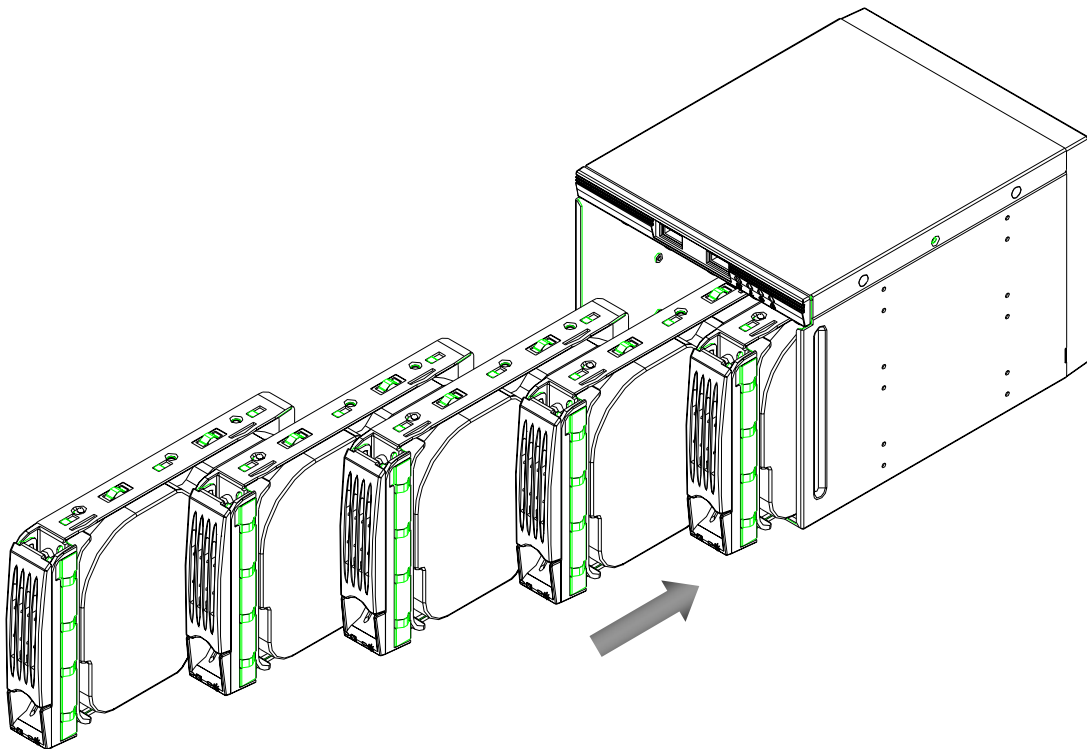
- a. Push the blue latch of hard drive carrier and pull the carrier out from the case**



- b. Attach the hard drives with six screws / per carrier**

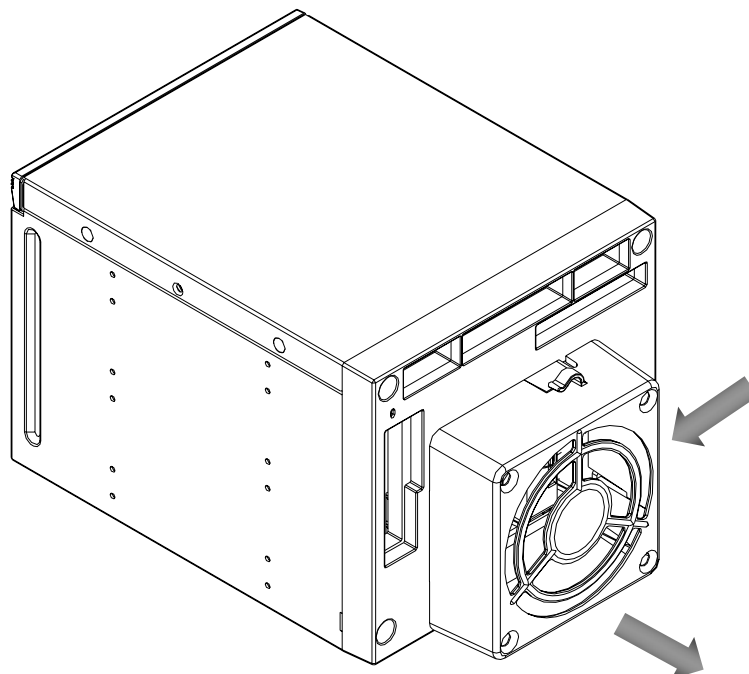


c. Insert the hard drive assembly to the tray

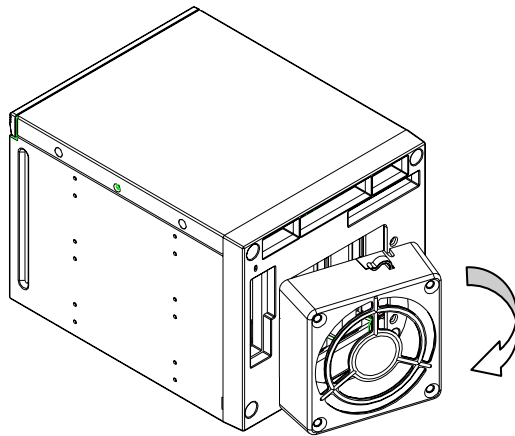


(2) Accessing the exhaust fan

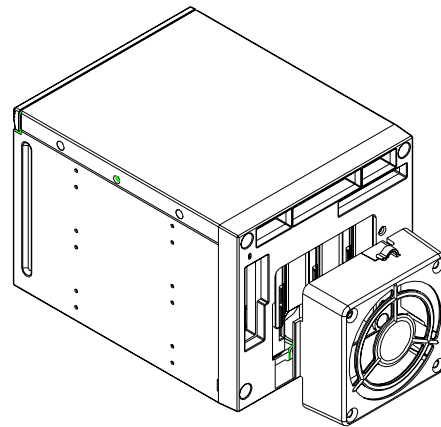
a. Push the tab on the right side (where have "push" mark on the fan cover)



b. Pull out the fan



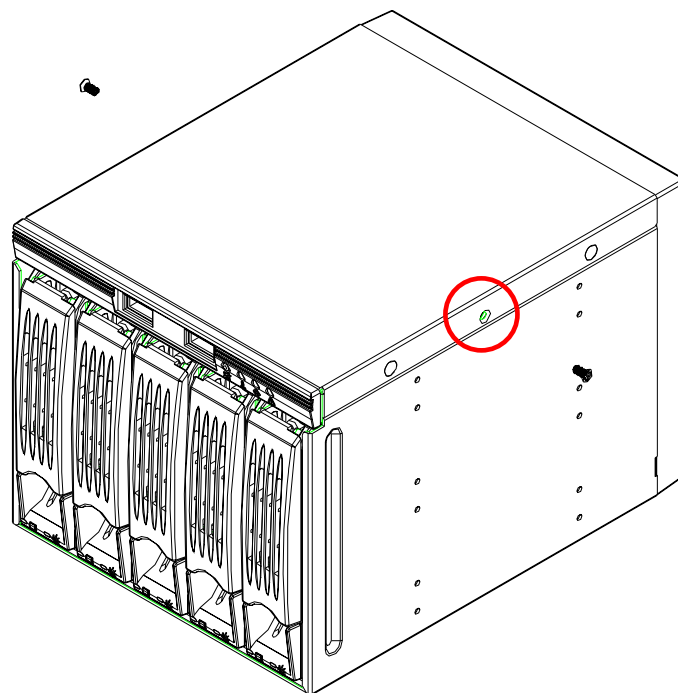
Step-1



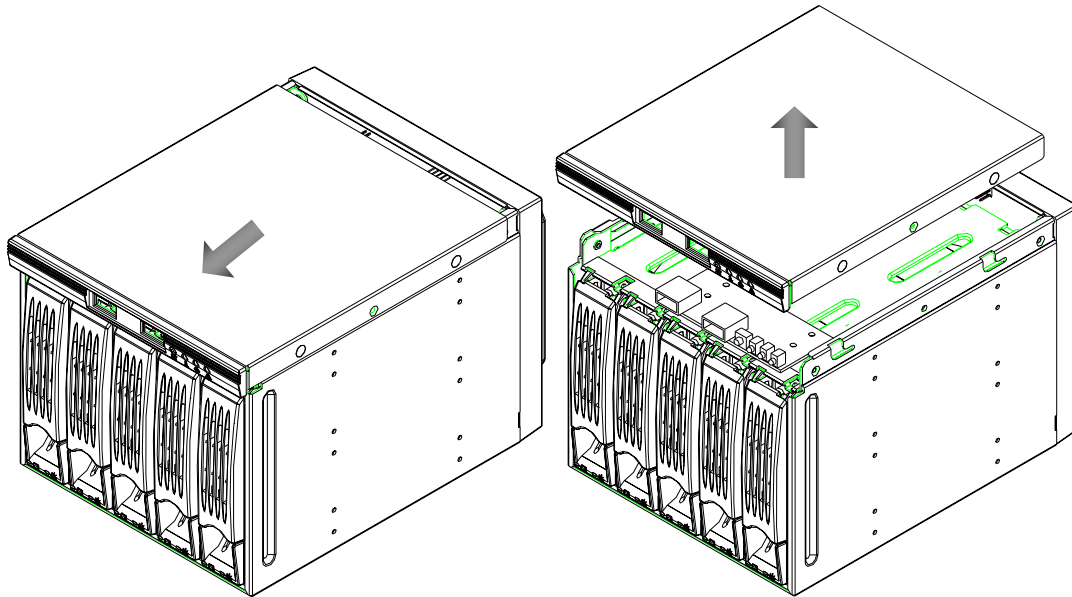
Step-2

(3) Accessing LED board and USB connection

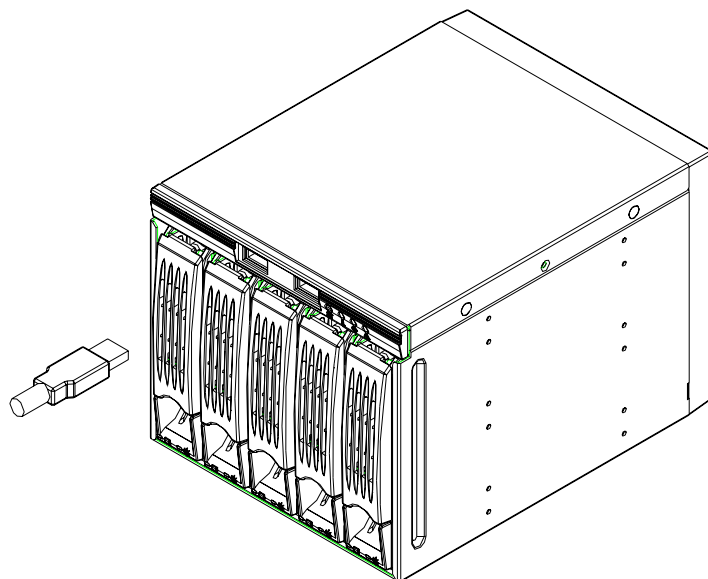
a. Release two screws from both sides of top cover



b. Slide forwards the top cover and remove the top cover, and you can see the LED board and LED cable

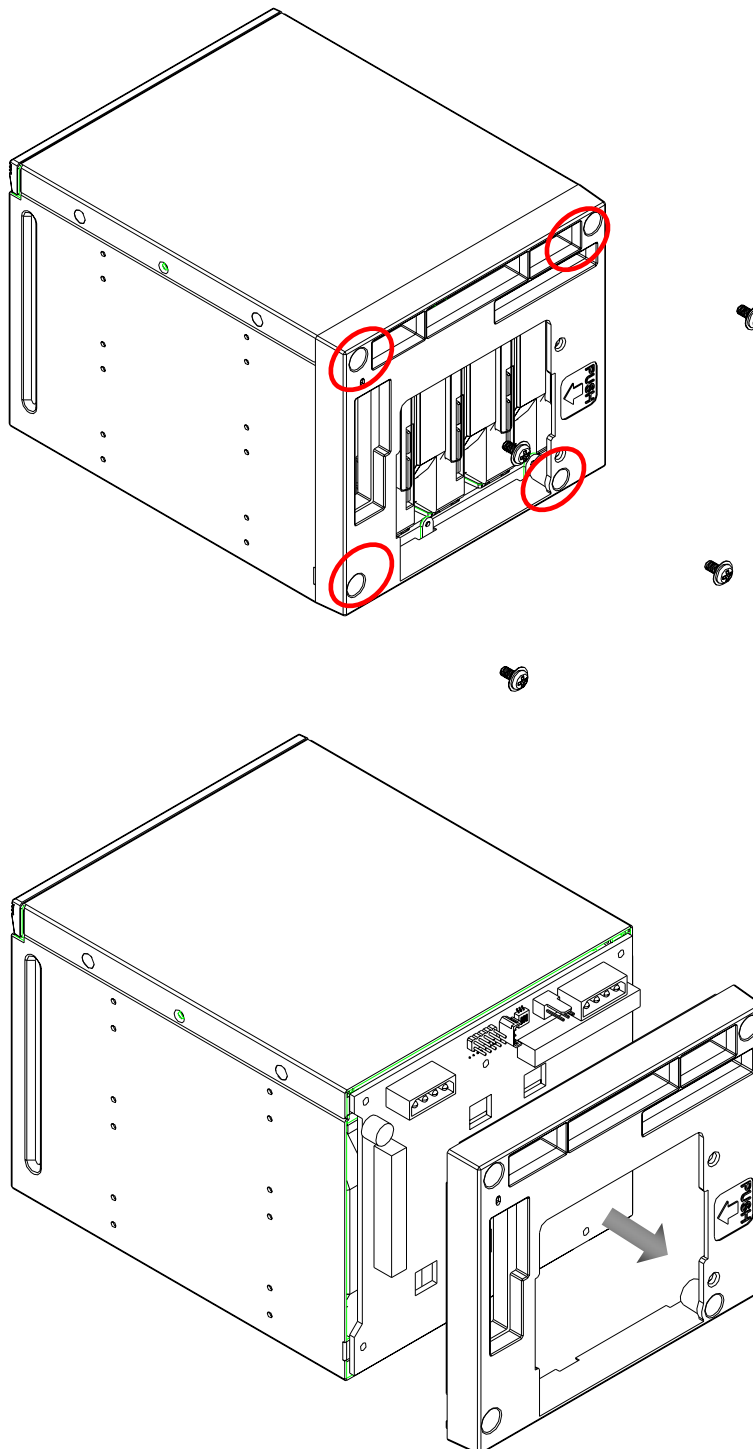


c. User can directly plug the USB connector to the USB port as below.

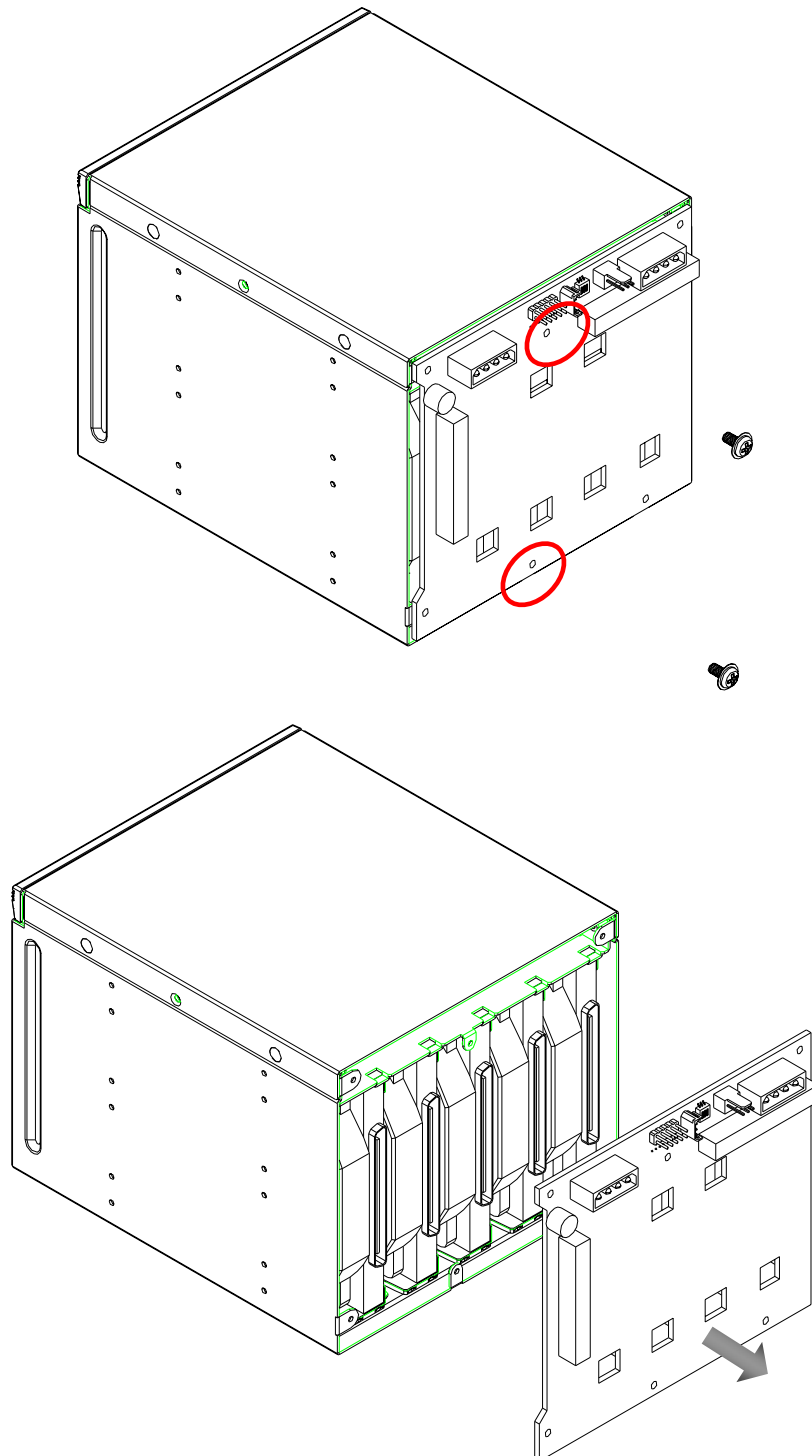


(4) Accessing backplane assembly

- a. After remove the rear exhaust fan (step #2), please release four screws (as below) to backplane cover disassembly



b. Remove two screws on the center-top and bottom as below.

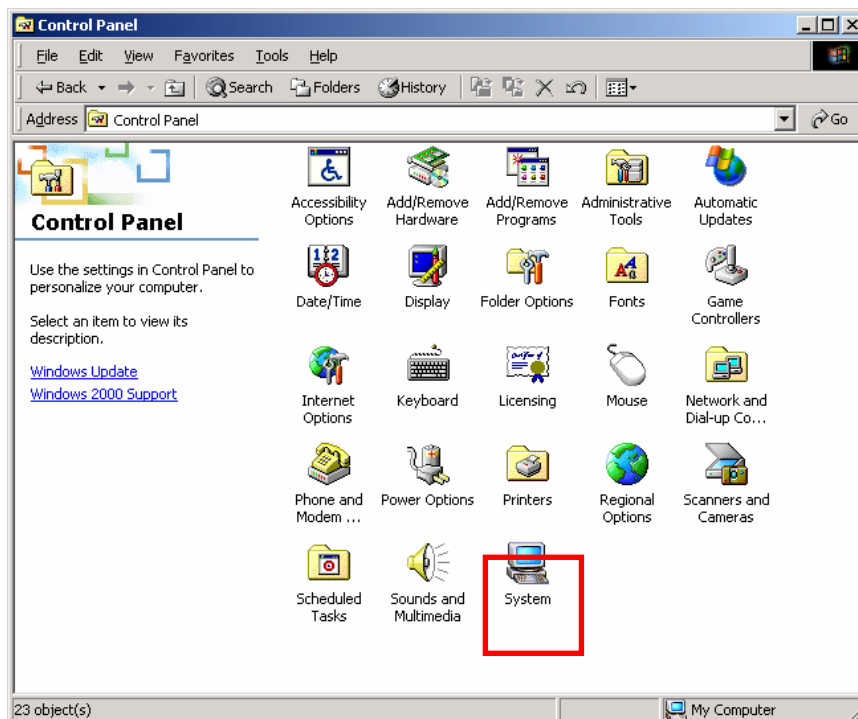


Relative Part Number List

<i>Part No.</i>	<i>Description</i>	<i>Unit</i>	<i>Remark</i>
83-305335-001	80mm T32 FAN,SK33502,W/HOLDER & SCREW	Pcs	
80-035335-001	SK235/335 LED board	Pcs	
80-105235-002	SK235 Ultra 320 SCSI Backplane (Non SAF-TE)	Pcs	
80-105235-001	SK235 Ultra 320 SCSI Backplane (w/ SAF-TE)	Pcs	
26-033219-002	USB Cable 2.0, 750mm, Universal Specification	Pcs	
26-073214-003	Ultra 320 SCSI Cable, 68pin, 500MM	Pcs	
26-033219-002	USB Cable 2.0, 750mm, Universal Specification	Pcs	
31-040000-006	Ultra 320 SCSI External Terminator	Pcs	

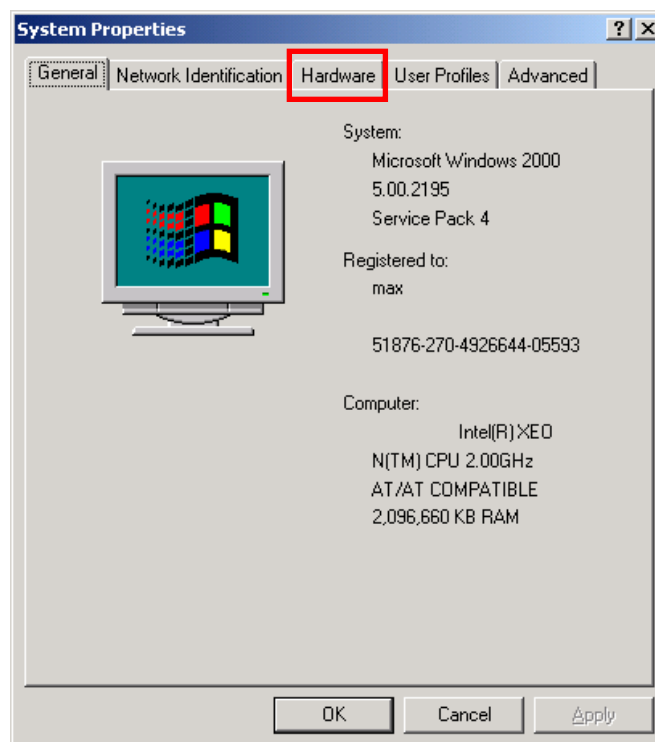
Driver installing process (for SAF-TE support only)

1. Open "Control Panel" and double click on "System" (Fig.1)



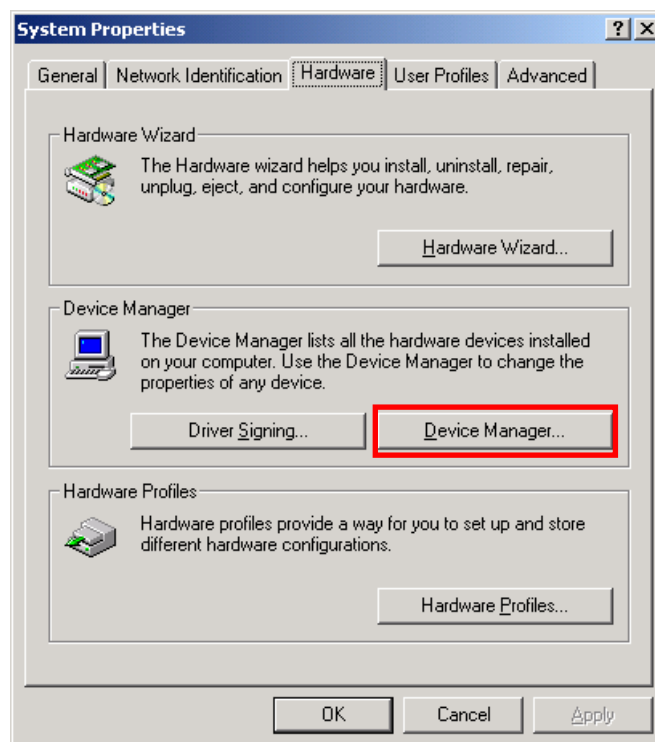
(Fig.1)

2. Go to "Hardware" page (Fig.2)



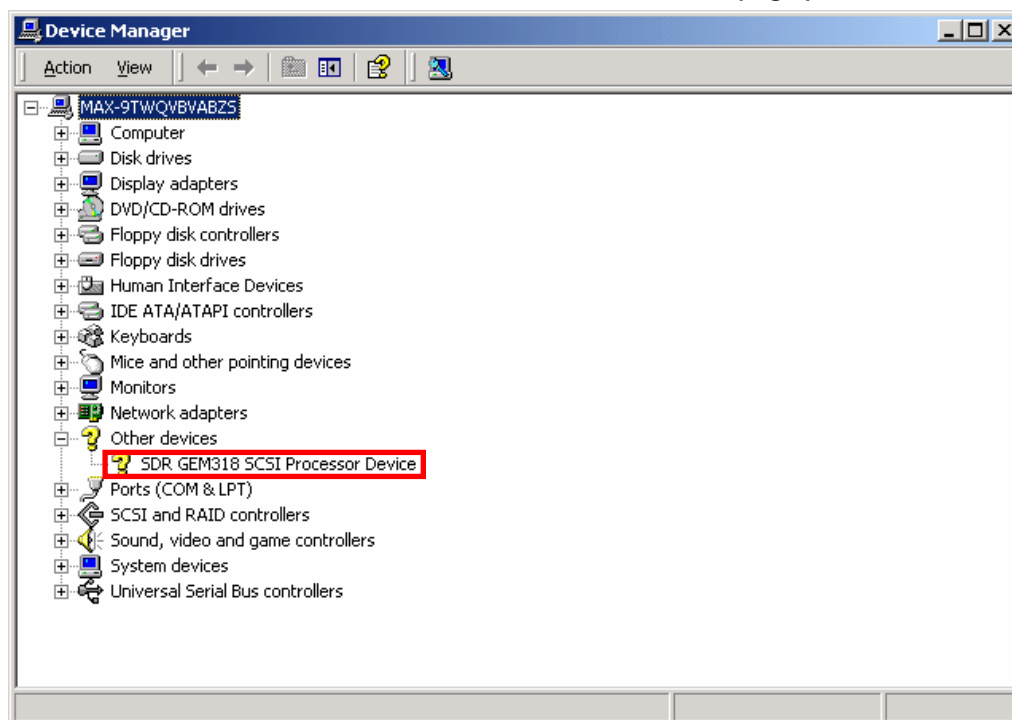
(Fig.2)

3. Press "Device Manger" button (Fig.3)



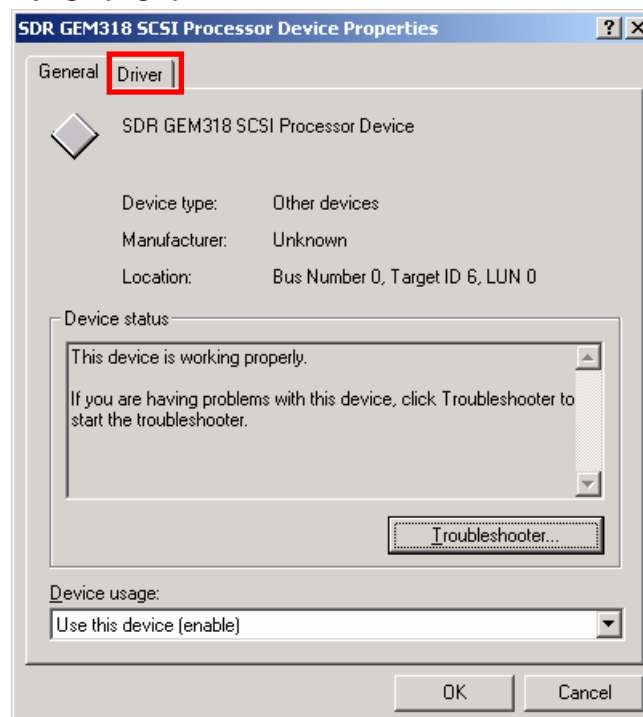
(Fig.3)

4. Double click on "SDR GEM318 SCSI Processor Device" (Fig.4)



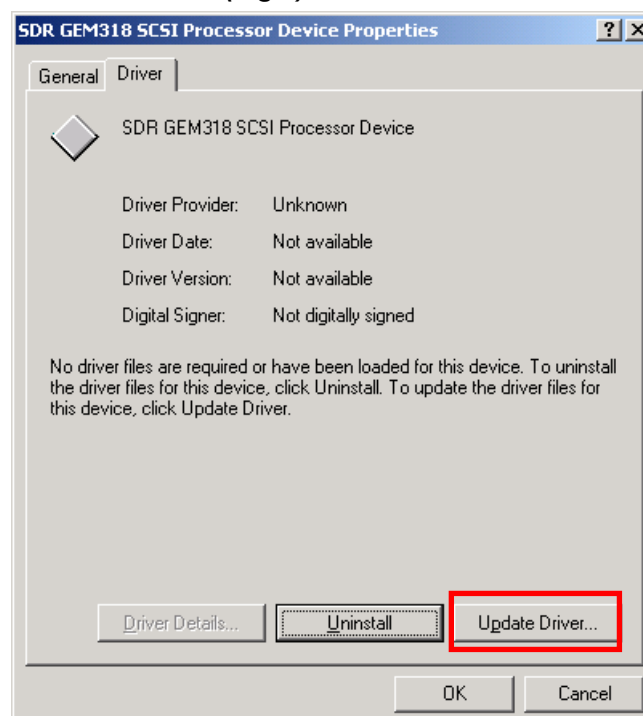
(Fig.4)

5. Go to "Driver" page (Fig.5)



(Fig.5)

6. Press "Update Driver" button (Fig.6)



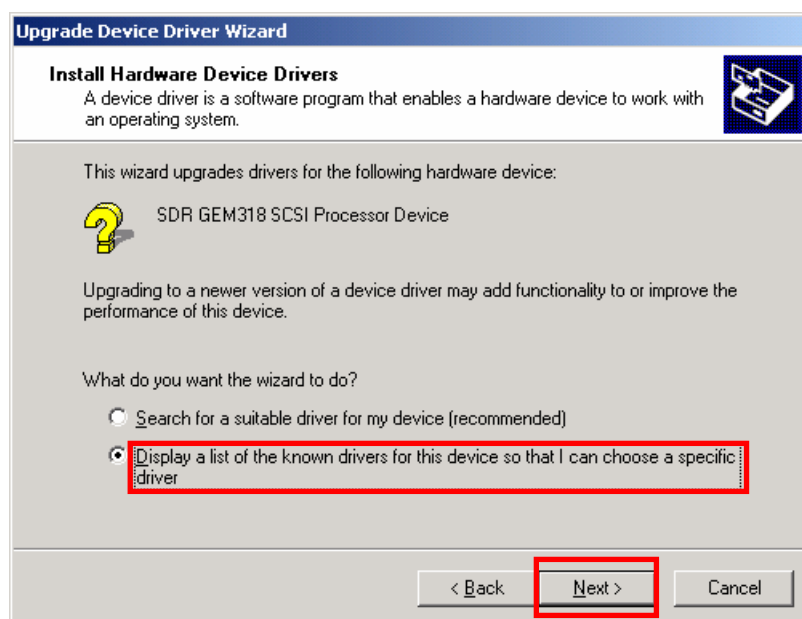
(Fig.6)

7. Click on "Next" button (Fig.7)



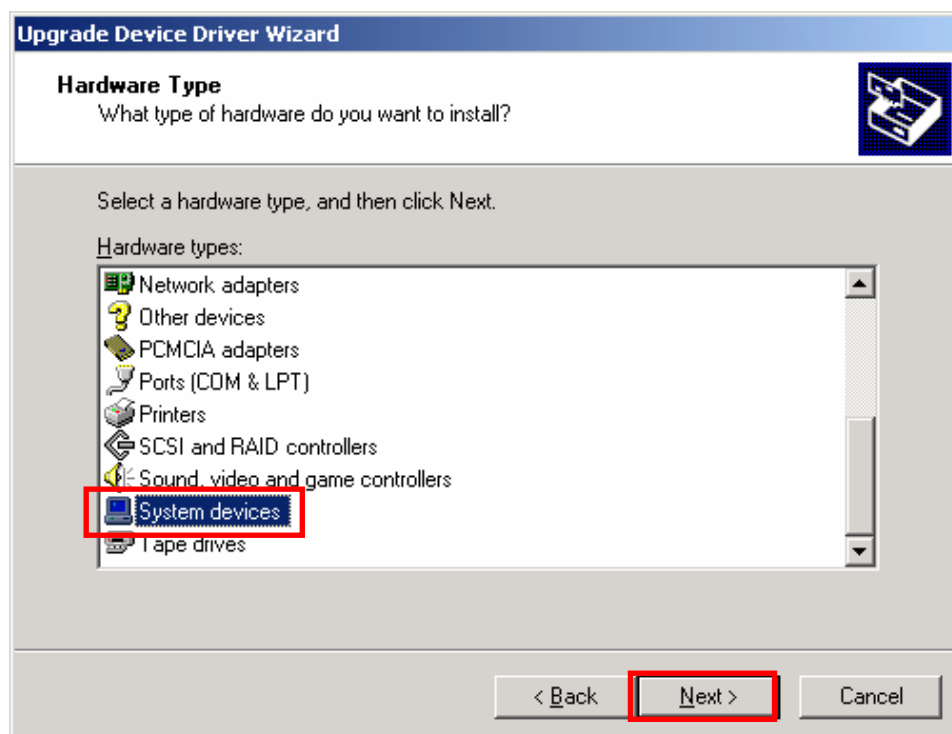
(Fig.7)

8. Choose "Display a list of the known drivers for this device so that I can choose a specific driver" item then press "Next" button (Fig.8)



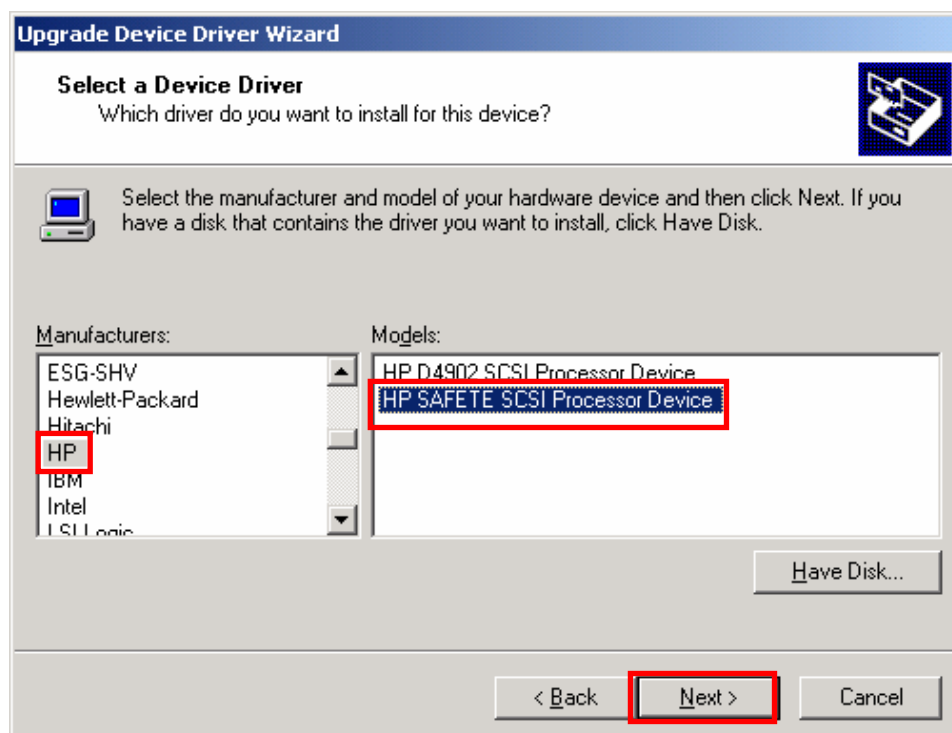
(Fig.8)

9. Choose "System devices" item then press "Next" button (Fig.9)



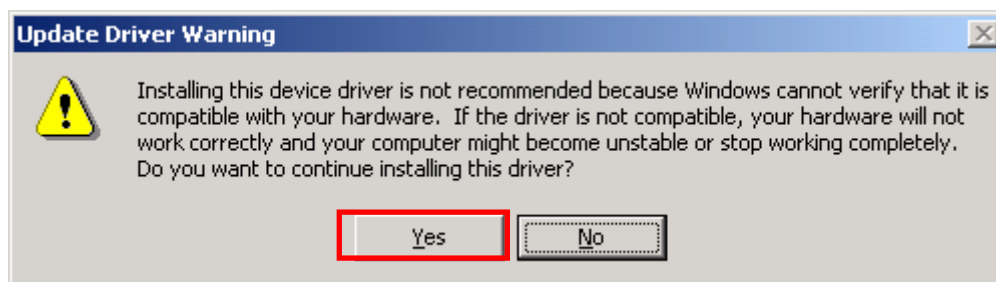
(Fig.9)

10. Choose "HP" item in left window and "HP SAFETE SCSI Processor Device" item in right window then press "Next" button (Fig.10)



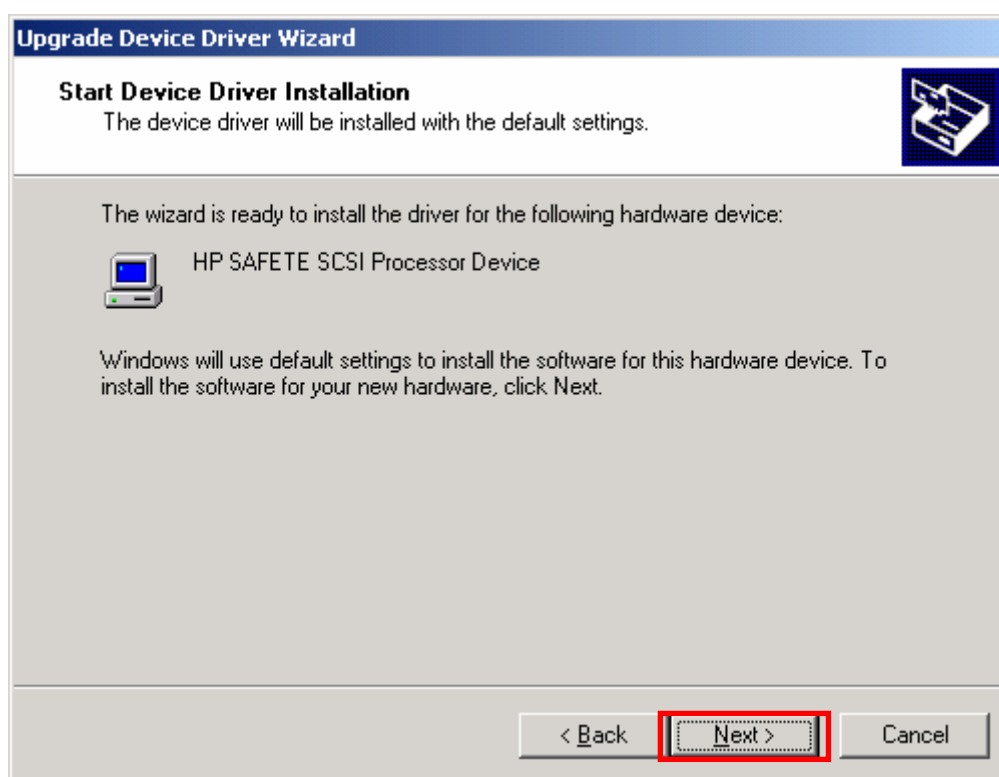
(Fig.10)

11. Press "Yes" button (Fig.11)



(Fig.11)

12. Press "Next" button (Fig.12)



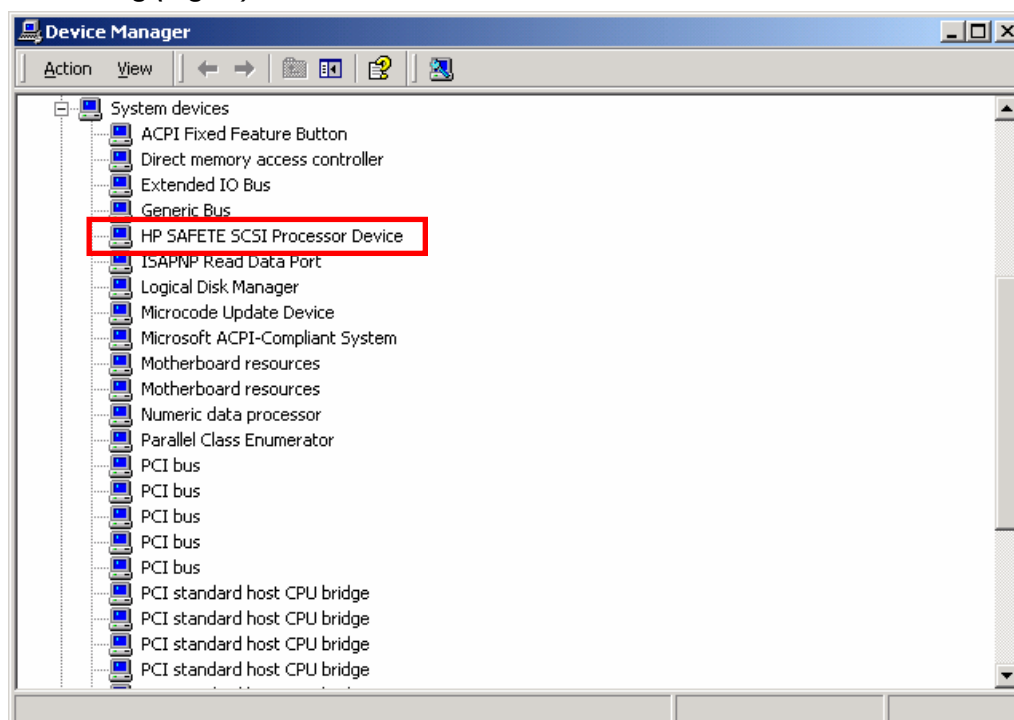
(Fig.12)

13. Press "Finish" button (Fig.13)



(Fig.13)

14. Please check System devices which shows "HP SATETE SCSI Processor Device" including (Fig.14)



(Fig.14)

